



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

**OFFICE OF
ENVIRONMENTAL
CLEANUP**

MEMORANDUM

DATE: August 18, 2016

SUBJECT: [draft] Source Control Decision
Owens Corning – Linnton Roofing and Asphalt Facility
ECSI #1036
June 27, 2016

FROM: Eva DeMaria, Remedial Project Manager *EDM*

TO: Alex Liverman, Project Manager
Oregon Department of Environmental Quality

Following are the United States Environmental Protection Agency's (EPA) comments on the June 27, 2016 [draft] Source Control Decision (SCD) document for the Owens Corning (OC) - Linnton Roofing and Asphalt Facility, ECSI #1036, located at 11444 and 11910 NW St. Helens Road in Portland, Oregon. The property is located on the west bank of Willamette River at approximately river mile 3.5 (RM3.5W). The SCD was prepared by the Oregon Department of Environmental Quality (ODEQ) based on information presented in the Source Control Evaluation report (Kennedy/Jenks 2010¹) and the Addendum to the Source Control Evaluation Report (Kennedy/Jenks 2015²). The SCD and associated reports focus on whether the stormwater pathway is a potential source of contamination to the Willamette River. The purpose of this review is to provide comments assessing whether the source control decision is justified by the data.

This review is limited to the stormwater pathway and does not address potential upland risks that are not subject to transport to the river. The addendum to the Source Control Evaluation report was finalized in May 2015 in response to inadequacies identified by ODEQ and was based on data collection activities performed in accordance with an ODEQ-approved work plan.

Source control measures conducted at the OC-Linnton site included sediment removal from stormwater lines, installation and improvement of containment berms, installation and regular maintenance of catch basin filter inserts, installation of a terraced and vegetated Greenway area, and reconfiguration of the stormwater system to beneficially reuse more than a million gallons of treated stormwater annually for irrigation rather than discharging it to the river.

Based on the minimal exceedances, the fact that exceedances for metals are for total metals, and the absence of significant sediment contamination offshore of the OC-Linnton facility, EPA agrees that the groundwater, overland surface flow, and bank erosion pathways do not represent significant sources of contamination to the Willamette River. Moreover, it is unlikely that stormwater is a significant source

¹ Kennedy/Jenks Consultants. 2010. Stormwater Source Control Evaluation of the Linnton Asphalt Facility. October 5, 2009, revised July 19, 2010.

² Kennedy/Jenks Consultants. 2015. Addendum to Stormwater Source Control Evaluation of the Linnton Asphalt Facility. April 7, 2015, revised May 8, 2015.

of contamination to the Willamette River at concentrations of concern as long as BMP implementation and monitoring continues.

EPA's comments are presented in the following sections. Comments are separated as "Primary," which identify concerns that must be resolved to achieve the assessment's objective; "To Be Considered," which, if addressed or resolved, would reduce uncertainty, improve confidence in the document's conclusions, and/or best support the assessment's objectives; and "Matters of Style," which substantially or adversely affect the presentation or understanding of the technical information provided in the report.

Primary Comments

1. Individual polycyclic aromatic hydrocarbons (PAHs) and bis (2-ethylhexyl) phthalate (BEHP) were detected in stormwater solids at concentrations exceeding preliminary remediation goals (PRGs) established in the Portland Harbor feasibility study (FS) for the source control pathway based upon remedial action objective (RAO) 9. Continued monitoring and implementation of BMPs that include regular cleaning out of catch basins and removal of sediment from stormwater lines may be necessary to ensure that PAHs and BEHP are not migrating to the Willamette River at concentrations that pose a risk to human health or the environment.
2. BEHP was detected in stormwater at concentrations ranging from 8 ug/L to 9.3 ug/L. These concentrations exceed the 0.2 ug/L RAO 3 PRG for BEHP established in the Portland Harbor FS. The levels of BEHP were within the upper/steeper portion of the rank-order curve presented in ODEQ's Guidance for Evaluating the Stormwater Pathway at Upland Sites (Appendix E, October 2010). As noted in the SCD, concentrations falling within the upper/steeper portion of the curve are an indication that uncontrolled contaminant sources may be present at the site. BEHP detections above PRGs were limited to the November 2014 sampling event and it was noted by ODEQ and in the Addendum to Stormwater Source Control Evaluation of the Linnton Asphalt Facility (Kennedy Jenks, 2015) that BEHP was also detected in the laboratory blank. Further monitoring may be necessary to confirm the presence/absence of BEHP in stormwater at the OC - Linnton facility.

To Be Considered

3. Stormwater sampling conducted in 2013 and 2014 showed total copper, total lead, total zinc, di-n-butyl phthalate, BEHP, and endosulfan above PRGs and/or SLVs. EPA notes that while total copper, total lead, and total zinc were detected in stormwater above surface water PRGs established for the Portland Harbor Site (RAOs 3 and 7), the facility is in compliance with its 12000-Z permit and many of the exceedances fall within the flat area of the rank order curve. Although di-n-butyl phthalate and endosulfan were detected above JSCS SLVs, neither chemical is a COC for the Portland Harbor Site.
4. Carcinogenic PAHs were detected in surface soil at concentrations exceeding the RAO 9 PRG. However, there is no evidence that surface soil contamination is migrating to the Willamette River at concentrations posing a risk to human health or the environment.

EPA Site Status Summary – Owens Corning – Linnton

Question	Answer	Description
Are source control measures (SCMs) being implemented?	Yes	Source control measures and best management practices to address the stormwater pathway at the OC – Linnton site included sediment removal from stormwater lines, installation and improvement of containment berms, installation and regular maintenance of catch basin filter inserts, installation of a terraced and vegetated Greenway area, and reconfiguration of the stormwater system to beneficially reuse more than a million gallons of treated stormwater annually for irrigation rather than discharging it to the river.
Are there JSCS SLV exceedances?	Yes	Total copper, total lead, total zinc, di-n-butyl phthalate, bis (2-ethylhexyl) phthalate (BEHP), endosulfan, and two PAHs were detected in stormwater above water SLVs. Endosulfan and di-n-butylphthalate are not COCs for the Portland Harbor site.
Are there stormwater PRG exceedances?	Yes	BEHP and PAHs were detected in stormwater solids at concentrations above Portland Harbor PRGs. Catch basin solid analyses were limited to PCBs, phthalates, PAHs, and TPH.
Are pollutant concentrations typical of Portland Harbor industrial sites (e.g. below the knee of the curve)?	Yes/No	Metals detected in stormwater above SLVs fell within the flat portion of the rank order curves. BEHP detections above SLVs and PRGs were in the steep portion of the curve but may have been influenced by laboratory contamination.
Are stormwater COCs from this site the same as those defined for the associated SDU?	Yes/No	Focused COCs for SDU 3.9W are limited to PAHs and DDx. Low levels of Acenaphthene and Fluorine were detected in stormwater prior to implementation of source control measures. Recent sampling has not detected DDx nor PAHs in stormwater. PAHs were detected in stormwater solids above PRGs. Other chemicals detected at elevated levels in offshore sediments include copper and mercury.
Do sampled stormwater events meet JSCS criteria?	No	The sampling events did not fully meet JSCS criteria.

Question	Answer	Description
Is further stormwater data collection recommended?	Yes	Ongoing monitoring should be implemented in accordance with the facility's NPDES 1200Z industrial stormwater permit with an expanded monitoring list that includes applicable site COCs.
Are additional SCMs recommended?	No	No additional SCMs are recommended contingent upon results of ongoing stormwater monitoring to verify the effectiveness of BMPs.